Five hundred polynomial factoring problem solutions

1. $x^2 - 14x + 45 = (x - 9)(x - 5)$

2. $3x^2 + 23x + 14 = (3x + 2)(x + 7)$

3. $2x^3 - 2x^2 - 9x + 9 = (2x^2 - 9)(x - 1)$

4. $3x^2 - 12x + 9 = (x - 3)(3x - 3)$

5. $2x^2 + 24x + 54 = (2x + 6)(x + 9)$

6. $3x^2 - 3 = (3x + 3)(x - 1)$

7. $2x^2 + 17x + 21 = (x + 7)(2x + 3)$

8. $8x^2 - 20x + 8 = (4x - 8)(2x - 1)$

9. $36x^2 - 12x - 35 = (6x - 7)(6x + 5)$

10. $5x^2 + 23x - 42 = (x + 6)(5x - 7)$

11. $x^2 + 6x - 16 = (x + 8)(x - 2)$

12. $4x^2 - 18x + 14 = (2x - 2)(2x - 7)$

13. $4x^2 + 38x + 18 = (x + 9)(4x + 2)$

14. $3x^2 - 15x + 12 = (x - 4)(3x - 3)$

15. $10x^2 - 23x - 5 = (5x + 1)(2x - 5)$

16. $6x^2 - 45x + 54 = (6x - 9)(x - 6)$

17. $4x^2 - 25x + 25 = (x - 5)(4x - 5)$

18. $x^3 - 2x^2 - 2x + 4 = (x^2 - 2)(x - 2)$

19. $15x^2 + 33x + 18 = (5x + 6)(3x + 3)$

20. $x^3 + x^2 - x - 1 = (x^2 - 1)(x + 1)$

21. $8x^2 - 14x - 72 = (4x + 9)(2x - 8)$

22. $12x^2 - 16x - 28 = (3x - 7)(4x + 4)$

23. $12x^3 - 6x^2 + 18x - 9 = (2x^2 + 3)(6x - 3)$

24. $6x^3 + 27x^2 + 18x + 81 = (3x^2 + 9)(2x + 9)$

25. $2x^2 + 26x + 72 = (x + 9)(2x + 8)$

26. $x^2 + 7x - 18 = (x + 9)(x - 2)$

27. $8x^2 + 10x - 63 = (4x - 9)(2x + 7)$

28. $4x^2 - 4 = (4x + 4)(x - 1)$

29. $6x^2 - 3x - 3 = (x - 1)(6x + 3)$

30. $2x^2 + 9x - 5 = (x + 5)(2x - 1)$

31. $4x^2 - 21x - 49 = (4x + 7)(x - 7)$

32. $x^2 - 2x - 48 = (x + 6)(x - 8)$

33. $x^2 - 14x + 48 = (x - 8)(x - 6)$

34. $x^2 - 2x - 63 = (x - 9)(x + 7)$

35. $2x^2 - 10x - 72 = (x - 9)(2x + 8)$

36. $4x^2 - 44x + 72 = (x - 9)(4x - 8)$

37. $3x^3 + 6x^2 + 6x + 12 = (x^2 + 2)(3x + 6)$

38. $2x^2 - 5x - 3 = (x - 3)(2x + 1)$

39. $2x^2 - 4x - 30 = (2x + 6)(x - 5)$

40. $4x^2 - 20x + 16 = (x - 4)(4x - 4)$

41. $x^2 - 8x + 12 = (x - 6)(x - 2)$

42. $12x^3 + 27x^2 - 4x - 9 = (3x^2 - 1)(4x + 9)$

43. $6x^2 - 5x - 21 = (2x + 3)(3x - 7)$

44. $8x^2 - 16x - 10 = (4x + 2)(2x - 5)$

45. $x^2 - 2x - 48 = (x + 6)(x - 8)$

46. $12x^2 + 46x - 8 = (6x - 1)(2x + 8)$

47. $4x^2 + 33x + 54 = (x + 6)(4x + 9)$

48. $x^2 + 4x - 5 = (x - 1)(x + 5)$

49. $3x^2 + 19x + 6 = (x + 6)(3x + 1)$

50. $2x^2 - 22x + 36 = (2x - 4)(x - 9)$

51. $4x^2 + 26x + 42 = (2x + 6)(2x + 7)$

52. $x^2 + 4x - 45 = (x - 5)(x + 9)$

53. $20x^2 + 60x + 40 = (5x + 5)(4x + 8)$

54. $12x^3 + 6x^2 - 6x - 3 = (6x^2 - 3)(2x + 1)$

55. $3x^2 - 24x - 27 = (3x + 3)(x - 9)$

56. $4x^3 - 3x^2 - 28x + 21 = (x^2 - 7)(4x - 3)$

57. $x^2 + 4x + 3 = (x + 3)(x + 1)$

58. $x^3 - 2x^2 - x + 2 = (x^2 - 1)(x - 2)$

59. $4x^2 - 21x + 20 = (x - 4)(4x - 5)$

60. $x^3 - 4x^2 - 5x + 20 = (x^2 - 5)(x - 4)$

61. $x^3 + 4x^2 + 6x + 24 = (x^2 + 6)(x + 4)$

62. $10x^2 - 35x + 25 = (2x - 5)(5x - 5)$

63. $3x^2 + 14x + 16 = (3x + 8)(x + 2)$

64. $4x^3 + 7x^2 - 16x - 28 = (x^2 - 4)(4x + 7)$

65. $3x^3 + 21x^2 - 7x - 49 = (3x^2 - 7)(x + 7)$

66. $6x^2 - 60x + 54 = (6x - 6)(x - 9)$

67. $18x^3 - 18x^2 - 12x + 12 = (6x^2 - 4)(3x - 3)$

68. $12x^2 + 14x + 4 = (2x + 1)(6x + 4)$

69. $3x^2 - 30x + 63 = (3x - 9)(x - 7)$

70. $12x^2 + 14x + 4 = (2x + 1)(6x + 4)$

71. $16x^2 + 8x - 63 = (4x + 9)(4x - 7)$

72. $12x^2 - 28x + 16 = (4x - 4)(3x - 4)$

73. $4x^2 + 21x - 18 = (x + 6)(4x - 3)$

74. $2x^2 - 9x + 9 = (2x - 3)(x - 3)$

75. $2x^3 + 6x^2 - 5x - 15 = (2x^2 - 5)(x + 3)$

76. $2x^2 - 3x - 35 = (x - 5)(2x + 7)$

77. $30x^2 - 29x - 45 = (6x + 5)(5x - 9)$

78. $x^2 - 5x - 14 = (x - 7)(x + 2)$

79. $2x^2 + 9x + 4 = (x + 4)(2x + 1)$

80. $x^2 + 6x + 5 = (x + 5)(x + 1)$

81. $x^2 - 11x + 24 = (x - 3)(x - 8)$

82. $x^2 + 2x - 24 = (x - 4)(x + 6)$

83. $15x^2 + 14x - 8 = (3x + 4)(5x - 2)$

84. $2x^2 + 18x + 40 = (x + 5)(2x + 8)$

85. $2x^2 + 6x - 8 = (x - 1)(2x + 8)$

86. $2x^2 + 13x + 6 = (2x + 1)(x + 6)$

87. $6x^2 + 19x + 15 = (3x + 5)(2x + 3)$

88. $4x^2 - 20x - 24 = (4x + 4)(x - 6)$

89. $2x^2 - 11x + 9 = (x - 1)(2x - 9)$

90. $3x^2 + 25x - 18 = (x + 9)(3x - 2)$

91. $x^3 + 6x^2 + 2x + 12 = (x^2 + 2)(x + 6)$

92. $2x^3 - 4x^2 - 3x + 6 = (2x^2 - 3)(x - 2)$

93. $2x^2 + 7x + 3 = (x + 3)(2x + 1)$

94. $x^2 - 2x - 63 = (x - 9)(x + 7)$

95. $x^2 + 3x - 54 = (x - 6)(x + 9)$

96. $12x^2 - 6x - 6 = (4x + 2)(3x - 3)$

97. $25x^2 + 5x - 12 = (5x + 4)(5x - 3)$

98. $5x^2 + x - 18 = (5x - 9)(x + 2)$

99. $8x^3 + 12x^2 + 2x + 3 = (4x^2 + 1)(2x + 3)$

100. $x^2 - 7x - 18 = (x - 9)(x + 2)$

101. $6x^2 + 25x + 25 = (2x + 5)(3x + 5)$

102. $2x^3 - 5x^2 - 2x + 5 = (x^2 - 1)(2x - 5)$

103. $3x^2 - x - 4 = (3x - 4)(x + 1)$

104. $20x^2 - 13x - 21 = (4x + 3)(5x - 7)$

105. $4x^2 - 34x - 18 = (x - 9)(4x + 2)$

106. $4x^2 - 24x + 32 = (4x - 8)(x - 4)$

107. $6x^2 - 39x + 45 = (x - 5)(6x - 9)$

108. $16x^2 - 36x + 18 = (4x - 3)(4x - 6)$

109. $3x^2 + 19x + 6 = (3x + 1)(x + 6)$

110. $x^3 + 4x^2 + 8x + 32 = (x^2 + 8)(x + 4)$

111. $x^3 + x^2 - 4x - 4 = (x^2 - 4)(x + 1)$

112. $3x^2 + 24x + 36 = (x + 6)(3x + 6)$

113. $2x^2 - 8x - 42 = (2x + 6)(x - 7)$

114. $3x^2 - 2x - 21 = (x - 3)(3x + 7)$

115. $4x^2 - 18x - 36 = (x - 6)(4x + 6)$

116. $x^2 - 5x - 24 = (x + 3)(x - 8)$

117. $12x^2 + 50x - 18 = (2x + 9)(6x - 2)$

118. $x^2 - 10x + 24 = (x - 6)(x - 4)$

119. $4x^2 + 25x + 6 = (4x + 1)(x + 6)$

120. $x^2 + 6x + 5 = (x + 1)(x + 5)$

121. $4x^2 - 40x + 36 = (4x - 4)(x - 9)$

122. $12x^2 + 23x - 24 = (4x - 3)(3x + 8)$

123. $2x^3 - 8x^2 - 12x + 48 = (x^2 - 6)(2x - 8)$

124. $2x^3 - 6x^2 + 9x - 27 = (2x^2 + 9)(x - 3)$

125. $12x^2 - 7x - 10 = (3x + 2)(4x - 5)$

126. $x^2 + 6x + 9 = (x + 3)(x + 3)$

127. $6x^2 + 38x + 56 = (3x + 7)(2x + 8)$

128. $2x^2 - 4x - 30 = (x - 5)(2x + 6)$

129. $36x^2 - 60x + 25 = (6x - 5)(6x - 5)$

130. $3x^2 + 4x + 1 = (x + 1)(3x + 1)$

131. $2x^2 + 17x + 36 = (x + 4)(2x + 9)$

132. $x^2 - 2x - 48 = (x + 6)(x - 8)$

133. $4x^2 - 30x + 56 = (2x - 8)(2x - 7)$

134. $12x^2 - 10x - 12 = (2x - 3)(6x + 4)$

135. $x^2 + 9x + 20 = (x + 4)(x + 5)$

136. $x^2 - 6x - 7 = (x - 7)(x + 1)$

137. $18x^3 - 9x^2 - 12x + 6 = (3x^2 - 2)(6x - 3)$

138. $4x^2 - 29x - 63 = (4x + 7)(x - 9)$

139. $3x^2 - 3x - 6 = (3x + 3)(x - 2)$

140. $24x^2 - 20x + 4 = (6x - 2)(4x - 2)$

141. $18x^2 + 57x + 24 = (6x + 3)(3x + 8)$

142. $3x^2 - 22x + 24 = (x - 6)(3x - 4)$

143. $15x^2 - 36x + 21 = (3x - 3)(5x - 7)$

144. $4x^2 + 19x - 30 = (4x - 5)(x + 6)$

145. $x^3 + x^2 - 3x - 3 = (x^2 - 3)(x + 1)$

146. $6x^2 + 21x - 12 = (6x - 3)(x + 4)$

147. $4x^2 - x - 5 = (4x - 5)(x + 1)$

148. $4x^2 - 33x + 35 = (x - 7)(4x - 5)$

149. $2x^3 + 10x^2 + 7x + 35 = (2x^2 + 7)(x + 5)$

150. $x^2 - 3x + 2 = (x - 1)(x - 2)$

151. $x^3 + 6x^2 + 9x + 54 = (x^2 + 9)(x + 6)$

152. $x^3 - 2x^2 + 6x - 12 = (x^2 + 6)(x - 2)$

153. $4x^3 - 14x^2 + 2x - 7 = (2x^2 + 1)(2x - 7)$

154. $x^2 + 4x - 21 = (x - 3)(x + 7)$

155. $2x^2 - 4x - 16 = (2x + 4)(x - 4)$

156. $4x^2 - 16 = (4x + 8)(x - 2)$

157. $5x^2 - 36x - 32 = (x - 8)(5x + 4)$

158. $9x^2 - 18x - 7 = (3x + 1)(3x - 7)$

159. $4x^3 + 16x^2 - 2x - 8 = (2x^2 - 1)(2x + 8)$

160. $3x^3 - 21x^2 - 8x + 56 = (3x^2 - 8)(x - 7)$

161. $24x^2 + 10x - 21 = (4x - 3)(6x + 7)$

162. $2x^2 - 22x + 56 = (x - 7)(2x - 8)$

163. $24x^2 - 8x - 42 = (4x - 6)(6x + 7)$

164. $6x^2 + 25x + 24 = (3x + 8)(2x + 3)$

165. $4x^3 + 6x^2 + 6x + 9 = (2x^2 + 3)(2x + 3)$

166. $2x^2 + 5x + 2 = (x + 2)(2x + 1)$

167. $2x^3 + 8x^2 - 16x - 64 = (x^2 - 8)(2x + 8)$

168. $4x^3 - 36x^2 - 6x + 54 = (4x^2 - 6)(x - 9)$

169. $3x^2 - 5x - 12 = (x - 3)(3x + 4)$

170. $2x^3 + 3x^2 - 18x - 27 = (x^2 - 9)(2x + 3)$

171. $12x^2 + 22x - 42 = (6x - 7)(2x + 6)$

172. $x^2 - 2x - 3 = (x + 1)(x - 3)$

173. $4x^2 + 12x - 40 = (4x - 8)(x + 5)$

174. $2x^2 - 10x - 28 = (2x + 4)(x - 7)$

175. $5x^2 + 46x + 9 = (5x + 1)(x + 9)$

176. $6x^2 - 28x + 16 = (3x - 2)(2x - 8)$

177. $x^2 - 7x - 18 = (x - 9)(x + 2)$

178. $5x^2 - 49x + 36 = (5x - 4)(x - 9)$

179. $6x^3 - 10x^2 + 6x - 10 = (2x^2 + 2)(3x - 5)$

180. $x^3 - 9x^2 + 7x - 63 = (x^2 + 7)(x - 9)$

181. $6x^2 - 12x - 18 = (3x + 3)(2x - 6)$

182. $x^3 - 7x^2 - 2x + 14 = (x^2 - 2)(x - 7)$

183. $4x^2 + 14x + 12 = (2x + 3)(2x + 4)$

184. $4x^2 - 18x + 18 = (x - 3)(4x - 6)$

185. $8x^2 - 12x - 20 = (4x + 4)(2x - 5)$

186. $x^3 - x^2 - 8x + 8 = (x^2 - 8)(x - 1)$

187. $2x^2 - 13x - 7 = (2x + 1)(x - 7)$

188. $15x^2 + 42x + 24 = (3x + 6)(5x + 4)$

189. $2x^2 - 9x + 10 = (x - 2)(2x - 5)$

190. $4x^2 - 36x + 32 = (x - 8)(4x - 4)$

191. $4x^2 + 16x - 48 = (x + 6)(4x - 8)$

192. $x^2 + 4x - 45 = (x + 9)(x - 5)$

193. $5x^2 - 14x + 8 = (5x - 4)(x - 2)$

194. $5x^2 - 25x - 30 = (x - 6)(5x + 5)$

195. $12x^2 - 64x + 64 = (2x - 8)(6x - 8)$

196. $3x^2 - 3x - 18 = (3x + 6)(x - 3)$

197. $2x^2 + 14x - 16 = (2x - 2)(x + 8)$

198. $3x^2 + 20x - 32 = (3x - 4)(x + 8)$

199. $x^2 - 6x - 7 = (x - 7)(x + 1)$

200. $20x^2 + 13x - 72 = (5x - 8)(4x + 9)$

201. $x^2 - 5x - 6 = (x - 6)(x + 1)$

202. $x^3 - x^2 + 5x - 5 = (x^2 + 5)(x - 1)$

203. $2x^2 - 11x + 12 = (2x - 3)(x - 4)$

204. $12x^3 - 12x^2 - 24x + 24 = (2x^2 - 4)(6x - 6)$

205. $6x^3 + 18x^2 - 16x - 48 = (3x^2 - 8)(2x + 6)$

206. $x^3 - 7x^2 + 5x - 35 = (x^2 + 5)(x - 7)$

207. $4x^2 - 28x - 72 = (x - 9)(4x + 8)$

208. $12x^2 + 11x - 36 = (3x - 4)(4x + 9)$

209. $9x^2 - 3x - 6 = (3x - 3)(3x + 2)$

210. $3x^2 - 24x + 21 = (x - 7)(3x - 3)$

211. $2x^2 - 9x - 5 = (x - 5)(2x + 1)$

212. $6x^2 - 6x - 36 = (3x + 6)(2x - 6)$

213. $2x^3 - 6x^2 + 2x - 6 = (2x^2 + 2)(x - 3)$

214. $x^2 - 1 = (x - 1)(x + 1)$

215. $6x^3 + 42x^2 + x + 7 = (6x^2 + 1)(x + 7)$

216. $2x^2 + 5x - 25 = (2x - 5)(x + 5)$

217. $5x^3 + 2x^2 - 25x - 10 = (x^2 - 5)(5x + 2)$

218. $4x^2 - 19x + 21 = (x - 3)(4x - 7)$

219. $3x^3 - 6x^2 - 2x + 4 = (3x^2 - 2)(x - 2)$

220. $4x^2 - 23x - 6 = (4x + 1)(x - 6)$

221. $x^2 - 9x + 14 = (x - 2)(x - 7)$

222. $6x^3 + 9x^2 - 18x - 27 = (3x^2 - 9)(2x + 3)$

223. $4x^2 - 12x + 8 = (2x - 4)(2x - 2)$

224. $18x^2 - 54x + 36 = (6x - 6)(3x - 6)$

225. $8x^2 - 10x - 12 = (2x - 4)(4x + 3)$

226. $x^2 - 2x - 8 = (x + 2)(x - 4)$

227. $6x^2 + 11x - 10 = (3x - 2)(2x + 5)$

228. $x^2 - 14x + 49 = (x - 7)(x - 7)$

229. $6x^2 - 38x - 28 = (6x + 4)(x - 7)$

230. $8x^3 - 32x^2 - 14x + 56 = (4x^2 - 7)(2x - 8)$

231. $2x^2 - 14x + 24 = (x - 3)(2x - 8)$

232. $8x^2 - 46x + 45 = (4x - 5)(2x - 9)$

233. $x^2 - 3x + 2 = (x - 2)(x - 1)$

234. $8x^2 - 38x + 45 = (2x - 5)(4x - 9)$

235. $16x^2 - 20x + 6 = (4x - 3)(4x - 2)$

236. $4x^2 - 17x + 18 = (x - 2)(4x - 9)$

237. $5x^2 + 17x - 12 = (5x - 3)(x + 4)$

238. $5x^2 - 29x - 42 = (5x + 6)(x - 7)$

239. $4x^2 - 16x + 12 = (x - 3)(4x - 4)$

240. $24x^3 - 8x^2 + 54x - 18 = (4x^2 + 9)(6x - 2)$

241. $x^2 - 16 = (x + 4)(x - 4)$

242. $4x^2 - 25x + 25 = (x - 5)(4x - 5)$

243. $x^2 + 12x + 27 = (x + 3)(x + 9)$

244. $6x^2 + 51x + 63 = (6x + 9)(x + 7)$

245. $4x^2 + 26x - 48 = (x + 8)(4x - 6)$

246. $3x^2 + 10x - 48 = (3x - 8)(x + 6)$

247. $2x^3 - x^2 + 12x - 6 = (x^2 + 6)(2x - 1)$

248. $2x^2 - 11x + 14 = (2x - 7)(x - 2)$

249. $4x^2 - 5x - 6 = (4x + 3)(x - 2)$

250. $x^2 + 9x + 8 = (x + 1)(x + 8)$

251. $2x^2 + 6x - 36 = (2x - 6)(x + 6)$

252. $4x^2 + 34x - 18 = (x + 9)(4x - 2)$

253. $18x^2 - 81x + 81 = (6x - 9)(3x - 9)$

254. $2x^2 + 4x - 30 = (2x - 6)(x + 5)$

255. $12x^3 + 2x^2 - 6x - 1 = (2x^2 - 1)(6x + 1)$

256. $x^2 - 5x - 6 = (x + 1)(x - 6)$

257. $2x^2 - 14x - 16 = (2x + 2)(x - 8)$

258. $3x^2 + 26x + 16 = (3x + 2)(x + 8)$

259. $8x^2 + 2x - 45 = (2x + 5)(4x - 9)$

260. $8x^2 - 18x + 9 = (2x - 3)(4x - 3)$

261. $2x^3 + 4x^2 - 6x - 12 = (x^2 - 3)(2x + 4)$

262. $20x^3 + 28x^2 + 35x + 49 = (4x^2 + 7)(5x + 7)$

263. $5x^3 - 20x^2 + 9x - 36 = (5x^2 + 9)(x - 4)$

264. $3x^2 - 28x + 32 = (x - 8)(3x - 4)$

265. $9x^2 - 30x + 21 = (3x - 7)(3x - 3)$

266. $9x^2 - 4 = (3x + 2)(3x - 2)$

267. $6x^2 + 4x - 2 = (x + 1)(6x - 2)$

268. $2x^2 - 12x + 16 = (x - 2)(2x - 8)$

269. $x^2 + 4x - 12 = (x - 2)(x + 6)$

270. $2x^2 - 17x + 36 = (x - 4)(2x - 9)$

271. $x^2 + 9x + 14 = (x + 7)(x + 2)$

272. $12x^2 + 47x + 40 = (3x + 8)(4x + 5)$

273. $x^2 - 4x - 21 = (x - 7)(x + 3)$

274. $4x^2 + 24x - 28 = (4x - 4)(x + 7)$

275. $4x^2 - 14x - 30 = (x - 5)(4x + 6)$

276. $8x^2 - 50x + 63 = (2x - 9)(4x - 7)$

277. $12x^2 + 32x - 64 = (6x - 8)(2x + 8)$

278. $2x^2 - 9x + 7 = (2x - 7)(x - 1)$

279. $6x^3 + 5x^2 - 24x - 20 = (x^2 - 4)(6x + 5)$

280. $9x^2 + 12x - 5 = (3x + 5)(3x - 1)$

281. $4x^2 - 31x + 21 = (x - 7)(4x - 3)$

282. $x^3 - 8x^2 + 4x - 32 = (x^2 + 4)(x - 8)$

283. $2x^2 - 23x + 45 = (2x - 5)(x - 9)$

284. $4x^2 - 11x - 20 = (x - 4)(4x + 5)$

285. $2x^2 - 12x + 10 = (x - 5)(2x - 2)$

286. $2x^2 + 11x + 12 = (2x + 3)(x + 4)$

287. $6x^3 + 24x^2 - 6x - 24 = (3x^2 - 3)(2x + 8)$

288. $10x^3 + 2x^2 - 35x - 7 = (2x^2 - 7)(5x + 1)$

289. $3x^3 - 21x^2 + 8x - 56 = (3x^2 + 8)(x - 7)$

290. $8x^2 + 18x - 56 = (2x + 8)(4x - 7)$

291. $x^2 + 12x + 32 = (x + 4)(x + 8)$

292. $2x^2 + 23x + 56 = (x + 8)(2x + 7)$

293. $24x^2 + 48x + 24 = (6x + 6)(4x + 4)$

294. $3x^2 - 14x - 24 = (x - 6)(3x + 4)$

295. $10x^2 - 6x - 28 = (2x - 4)(5x + 7)$

296. $x^2 - 5x - 14 = (x - 7)(x + 2)$

297. $18x^2 + 48x + 30 = (6x + 6)(3x + 5)$

298. $x^2 - x - 20 = (x + 4)(x - 5)$

299. $6x^2 - 11x - 10 = (3x + 2)(2x - 5)$

300. $5x^2 - 20x + 15 = (5x - 5)(x - 3)$

301. $4x^2 - 21x - 49 = (4x + 7)(x - 7)$

302. $6x^2 + 11x + 3 = (2x + 3)(3x + 1)$

303. $12x^2 - 32x + 5 = (6x - 1)(2x - 5)$

304. $x^2 - 5x - 14 = (x - 7)(x + 2)$

305. $x^3 + 3x^2 + 8x + 24 = (x^2 + 8)(x + 3)$

306. $4x^3 + 18x^2 - 6x - 27 = (2x^2 - 3)(2x + 9)$

307. $16x^2 - 72x + 81 = (4x - 9)(4x - 9)$

308. $30x^3 + 30x^2 - 24x - 24 = (5x^2 - 4)(6x + 6)$

309. $30x^2 + 7x - 49 = (6x - 7)(5x + 7)$

310. $x^2 + 10x + 21 = (x + 7)(x + 3)$

311. $x^3 + 4x^2 + 7x + 28 = (x^2 + 7)(x + 4)$

312. $4x^2 + 27x + 35 = (x + 5)(4x + 7)$

313. $x^2 - 1 = (x - 1)(x + 1)$

314. $16x^3 + 36x^2 - 12x - 27 = (4x^2 - 3)(4x + 9)$

315. $6x^3 - 4x^2 - 3x + 2 = (2x^2 - 1)(3x - 2)$

316. $8x^2 + 26x - 7 = (2x + 7)(4x - 1)$

317. $2x^2 - 11x + 5 = (x - 5)(2x - 1)$

318. $6x^3 + 48x^2 - 3x - 24 = (6x^2 - 3)(x + 8)$

319. $30x^2 - 64x + 32 = (5x - 4)(6x - 8)$

320. $20x^3 - 40x^2 + 16x - 32 = (5x^2 + 4)(4x - 8)$

321. $2x^2 + x - 21 = (x - 3)(2x + 7)$

322. $2x^2 - 13x + 18 = (2x - 9)(x - 2)$

323. $25x^2 - 36 = (5x - 6)(5x + 6)$

324. $8x^2 - 44x + 48 = (4x - 6)(2x - 8)$

325. $12x^3 - 16x^2 + 6x - 8 = (4x^2 + 2)(3x - 4)$

326. $10x^2 + 3x - 18 = (2x + 3)(5x - 6)$

327. $x^2 - 12x + 36 = (x - 6)(x - 6)$

328. $6x^2 - 2x - 8 = (3x - 4)(2x + 2)$

329. $8x^2 + 16x - 10 = (2x + 5)(4x - 2)$

330. $3x^2 + 3x - 6 = (x - 1)(3x + 6)$

331. $3x^2 + 14x + 16 = (x + 2)(3x + 8)$

332. $10x^2 + 22x + 4 = (2x + 4)(5x + 1)$

333. $4x^2 - 12x - 40 = (x - 5)(4x + 8)$

334. $4x^2 - 8x - 12 = (2x - 6)(2x + 2)$

335. $5x^2 - 32x - 21 = (5x + 3)(x - 7)$

336. $6x^2 + 24x - 30 = (x + 5)(6x - 6)$

337. $16x^2 + 36x + 8 = (4x + 1)(4x + 8)$

338. $2x^2 - 8x + 8 = (2x - 4)(x - 2)$

339. $6x^2 + 41x - 56 = (6x - 7)(x + 8)$

340. $6x^2 + 17x + 10 = (6x + 5)(x + 2)$

341. $x^3 - 9x^2 + 4x - 36 = (x^2 + 4)(x - 9)$

342. $2x^2 - 17x + 21 = (2x - 3)(x - 7)$

343. $3x^2 + 22x + 35 = (3x + 7)(x + 5)$

344. $9x^3 + 18x^2 + 24x + 48 = (3x^2 + 8)(3x + 6)$

345. $4x^2 - 12x - 16 = (2x + 2)(2x - 8)$

346. $x^2 - 14x + 45 = (x - 9)(x - 5)$

347. $x^3 - 2x^2 - 8x + 16 = (x^2 - 8)(x - 2)$

348. $4x^2 + 22x - 42 = (x + 7)(4x - 6)$

349. $x^2 + x - 30 = (x + 6)(x - 5)$

350. $15x^3 + 3x^2 + 15x + 3 = (3x^2 + 3)(5x + 1)$

351. $18x^2 - 6x - 40 = (3x - 5)(6x + 8)$

352. $2x^2 - 8 = (2x - 4)(x + 2)$

353. $6x^2 + 2x - 4 = (x + 1)(6x - 4)$

354. $3x^2 + 13x + 14 = (x + 2)(3x + 7)$

355. $x^2 - 81 = (x + 9)(x - 9)$

356. $4x^2 + 17x - 15 = (4x - 3)(x + 5)$

357. $12x^2 - 60x + 63 = (6x - 9)(2x - 7)$

358. $6x^2 + 22x - 8 = (x + 4)(6x - 2)$

359. $12x^3 - 4x^2 - 12x + 4 = (4x^2 - 4)(3x - 1)$

360. $5x^2 - 33x - 14 = (5x + 2)(x - 7)$

361. $4x^2 - 41x + 45 = (x - 9)(4x - 5)$

362. $x^2 - 5x - 6 = (x + 1)(x - 6)$

363. $24x^2 - 20x - 4 = (6x + 1)(4x - 4)$

364. $5x^2 - 19x - 4 = (x - 4)(5x + 1)$

365. $4x^2 - 28x + 24 = (x - 6)(4x - 4)$

366. $5x^3 + x^2 + 10x + 2 = (x^2 + 2)(5x + 1)$

367. $16x^3 + 4x^2 + 32x + 8 = (4x^2 + 8)(4x + 1)$

368. $2x^2 - 19x + 42 = (2x - 7)(x - 6)$

369. $18x^2 + 45x - 27 = (6x - 3)(3x + 9)$

370. $x^2 + 5x - 24 = (x - 3)(x + 8)$

371. $x^3 - 7x^2 + 6x - 42 = (x^2 + 6)(x - 7)$

372. $x^2 - 11x + 30 = (x - 6)(x - 5)$

373. $x^3 - 7x^2 + 4x - 28 = (x^2 + 4)(x - 7)$

374. $2x^2 - 3x - 20 = (2x + 5)(x - 4)$

375. $2x^2 - 3x - 27 = (2x - 9)(x + 3)$

376. $x^2 + 18x + 81 = (x + 9)(x + 9)$

377. $2x^2 + 2x - 24 = (x - 3)(2x + 8)$

378. $6x^2 + 8x - 30 = (3x - 5)(2x + 6)$

379. $3x^3 - 9x^2 - 15x + 45 = (x^2 - 5)(3x - 9)$

380. $10x^2 - 24x + 8 = (5x - 2)(2x - 4)$

381. $20x^2 + 56x + 36 = (4x + 4)(5x + 9)$

382. $x^2 - 2x + 1 = (x - 1)(x - 1)$

383. $2x^2 - 3x - 54 = (x - 6)(2x + 9)$

384. $6x^2 + 24x - 30 = (6x - 6)(x + 5)$

385. $2x^2 + 16x + 14 = (2x + 2)(x + 7)$

386. $3x^3 + 6x^2 - 3x - 6 = (3x^2 - 3)(x + 2)$

387. $18x^2 - 36x - 54 = (6x + 6)(3x - 9)$

388. $x^2 - 11x + 30 = (x - 6)(x - 5)$

389. $4x^3 + 3x^2 - 4x - 3 = (x^2 - 1)(4x + 3)$

390. $6x^2 - 24x + 24 = (3x - 6)(2x - 4)$

391. $6x^2 + 8x - 8 = (x + 2)(6x - 4)$

392. $2x^2 - 13x + 6 = (x - 6)(2x - 1)$

393. $3x^2 - 28x + 9 = (x - 9)(3x - 1)$

394. $6x^2 + 44x + 14 = (6x + 2)(x + 7)$

395. $3x^2 + 23x - 8 = (x + 8)(3x - 1)$

396. $2x^2 + 7x - 49 = (2x - 7)(x + 7)$

397. $3x^3 + 18x^2 - 3x - 18 = (3x^2 - 3)(x + 6)$

398. $4x^2 - 11x + 6 = (x - 2)(4x - 3)$

399. $5x^3 + 40x^2 + x + 8 = (5x^2 + 1)(x + 8)$

400. $4x^2 - 6x - 4 = (4x + 2)(x - 2)$

401. $x^2 + 8x + 15 = (x + 3)(x + 5)$

402. $6x^2 - 12x - 48 = (2x - 8)(3x + 6)$

403. $2x^2 + 14x + 24 = (x + 4)(2x + 6)$

404. $2x^2 + 12x - 54 = (2x - 6)(x + 9)$

405. $9x^3 + 21x^2 + 27x + 63 = (3x^2 + 9)(3x + 7)$

406. $9x^2 + 6x - 35 = (3x + 7)(3x - 5)$

407. $4x^2 + 14x + 12 = (x + 2)(4x + 6)$

408. $3x^2 - 26x + 48 = (x - 6)(3x - 8)$

409. $2x^2 + 7x - 9 = (2x + 9)(x - 1)$

410. $12x^2 - 27x - 27 = (3x - 9)(4x + 3)$

411. $3x^2 + 6x - 9 = (x - 1)(3x + 9)$

412. $3x^2 + 14x + 15 = (3x + 5)(x + 3)$

413. $5x^2 + 23x + 12 = (x + 4)(5x + 3)$

414. $4x^2 + 32x + 28 = (x + 7)(4x + 4)$

415. $x^2 - 4x + 3 = (x - 3)(x - 1)$

416. $6x^2 - 37x - 35 = (6x + 5)(x - 7)$

417. $10x^2 + 50x + 40 = (5x + 5)(2x + 8)$

418. $x^2 - 9x + 8 = (x - 8)(x - 1)$

419. $2x^2 + 12x - 14 = (x + 7)(2x - 2)$

420. $24x^2 + 20x - 24 = (6x - 4)(4x + 6)$

421. $3x^3 - 6x^2 - 6x + 12 = (x^2 - 2)(3x - 6)$

422. $3x^2 + 21x - 54 = (3x - 6)(x + 9)$

423. $3x^3 - 21x^2 - 3x + 21 = (3x^2 - 3)(x - 7)$

424. $2x^3 + 6x^2 + 4x + 12 = (x^2 + 2)(2x + 6)$

425. $3x^3 + 9x^2 - x - 3 = (3x^2 - 1)(x + 3)$

426. $2x^2 + x - 3 = (2x + 3)(x - 1)$

427. $16x^2 - 56x + 49 = (4x - 7)(4x - 7)$

428. $8x^3 - 14x^2 - 12x + 21 = (2x^2 - 3)(4x - 7)$

429. $2x^3 + 12x^2 + 3x + 18 = (2x^2 + 3)(x + 6)$

430. $5x^3 - 4x^2 - 10x + 8 = (x^2 - 2)(5x - 4)$

431. $4x^2 - 34x - 18 = (4x + 2)(x - 9)$

432. $15x^2 + 57x + 54 = (5x + 9)(3x + 6)$

433. $5x^2 - 23x - 10 = (5x + 2)(x - 5)$

434. $3x^2 + 12x + 12 = (3x + 6)(x + 2)$

435. $3x^2 + 15x + 18 = (x + 3)(3x + 6)$

436. $5x^2 - 37x - 72 = (x - 9)(5x + 8)$

437. $24x^2 - 52x + 24 = (4x - 6)(6x - 4)$

438. $x^2 + x - 12 = (x + 4)(x - 3)$

439. $x^2 - 10x + 24 = (x - 6)(x - 4)$

440. $2x^2 + 3x - 20 = (2x - 5)(x + 4)$

441. $15x^2 + 26x + 8 = (3x + 4)(5x + 2)$

442. $4x^3 + 8x^2 - 36x - 72 = (x^2 - 9)(4x + 8)$

443. $10x^3 - 6x^2 - 25x + 15 = (2x^2 - 5)(5x - 3)$

444. $x^2 - x - 20 = (x + 4)(x - 5)$

445. $4x^2 - 34x + 42 = (x - 7)(4x - 6)$

446. $20x^2 - 36x + 16 = (5x - 4)(4x - 4)$

447. $2x^2 + 19x + 35 = (2x + 5)(x + 7)$

448. $2x^2 - x - 28 = (x - 4)(2x + 7)$

449. $2x^2 - 8x + 6 = (x - 3)(2x - 2)$

450. $2x^2 - 11x + 12 = (2x - 3)(x - 4)$

451. $x^2 + 16x + 63 = (x + 9)(x + 7)$

452. $6x^2 + 19x + 15 = (3x + 5)(2x + 3)$

453. $6x^3 - 6x^2 + 16x - 16 = (3x^2 + 8)(2x - 2)$

454. $2x^2 - 7x - 9 = (x + 1)(2x - 9)$

455. $4x^2 + 21x + 20 = (4x + 5)(x + 4)$

456. $16x^2 - 24x - 27 = (4x + 3)(4x - 9)$

457. $4x^2 + 34x - 18 = (x + 9)(4x - 2)$

458. $2x^2 - x - 3 = (x + 1)(2x - 3)$

459. $5x^2 - 23x + 24 = (5x - 8)(x - 3)$

460. $x^3 + 2x^2 + 8x + 16 = (x^2 + 8)(x + 2)$

461. $2x^2 - 5x + 3 = (2x - 3)(x - 1)$

462. $3x^3 - 3x^2 - 18x + 18 = (x^2 - 6)(3x - 3)$

463. $6x^2 + 11x - 35 = (3x - 5)(2x + 7)$

464. $30x^3 - 40x^2 + 42x - 56 = (5x^2 + 7)(6x - 8)$

465. $2x^2 - 2x - 12 = (x - 3)(2x + 4)$

466. $x^2 + 17x + 72 = (x + 8)(x + 9)$

467. $4x^2 - 8x - 21 = (2x + 3)(2x - 7)$

468. $3x^3 - 24x^2 + 2x - 16 = (3x^2 + 2)(x - 8)$

469. $x^2 + 9x + 14 = (x + 7)(x + 2)$

470. $5x^2 + 7x - 24 = (x + 3)(5x - 8)$

471. $5x^2 - 19x + 12 = (x - 3)(5x - 4)$

472. $4x^2 + 33x + 8 = (x + 8)(4x + 1)$

473. $3x^2 - 28x + 9 = (x - 9)(3x - 1)$

474. $2x^2 + 8x - 10 = (2x - 2)(x + 5)$

475. $4x^2 - 6x - 18 = (4x + 6)(x - 3)$

476. $4x^2 + 18x + 14 = (2x + 7)(2x + 2)$

477. $3x^2 - 30x + 63 = (3x - 9)(x - 7)$

478. $x^3 - 2x^2 - 2x + 4 = (x^2 - 2)(x - 2)$

479. $2x^2 + 3x - 5 = (x - 1)(2x + 5)$

480. $5x^3 - 35x^2 + 6x - 42 = (5x^2 + 6)(x - 7)$

481. $10x^2 - 10x - 20 = (2x - 4)(5x + 5)$

482. $5x^2 + 23x + 24 = (5x + 8)(x + 3)$

483. $x^2 - 9 = (x - 3)(x + 3)$

484. $4x^2 + 22x + 24 = (2x + 3)(2x + 8)$

485. $3x^2 - 15x + 18 = (3x - 6)(x - 3)$

486. $12x^2 - 31x + 20 = (4x - 5)(3x - 4)$

487. $x^3 + 9x^2 - 4x - 36 = (x^2 - 4)(x + 9)$

488. $2x^2 - 9x - 81 = (2x + 9)(x - 9)$

489. $24x^2 - 20x + 4 = (4x - 2)(6x - 2)$

490. $x^2 - x - 42 = (x - 7)(x + 6)$

491. $4x^2 - 19x + 12 = (x - 4)(4x - 3)$

492. $8x^2 - 12x - 8 = (2x - 4)(4x + 2)$

493. $3x^3 - 12x^2 + 2x - 8 = (3x^2 + 2)(x - 4)$

494. $4x^2 - 25x + 6 = (x - 6)(4x - 1)$

495. $20x^3 - 35x^2 + 20x - 35 = (5x^2 + 5)(4x - 7)$

496. $6x^2 - 10x - 4 = (2x - 4)(3x + 1)$

497. $2x^2 + 20x + 32 = (x + 8)(2x + 4)$

498. $4x^2 + 29x - 63 = (x + 9)(4x - 7)$

499. $3x^2 + 20x - 32 = (3x - 4)(x + 8)$

500. $5x^3 + 10x^2 + 6x + 12 = (5x^2 + 6)(x + 2)$